REMARKS

Claims 1-19 are pending. By this Amendment, claims 6-7 are currently amended and claims 13-19 are being newly presented. No new matter is presented.

Applicants respectfully note the Office Action Summary sheet lists the Information Disclosure Statement (PTO 1449) filed as Paper No. 3 on November 6, 2001 as an attachment. A copy of the PTO 1449 was attached to the March 5, 2003 but was not signed or initialed by the Examiner to indicate that the references were considered by the Examiner. Applicants respectfully request a copy of the initialed PTO 1449 and attach hereto a copy of the PTO 1449 for the convenience of the Examiner.

Claims 7-8 Allowed

Applicants respectfully acknowledge and appreciate the indication by the Examiner that claims 7-8 are allowed. Applicants respectfully submit that claims 9/7, 9/8, 10/7, 10/8, 11/7, 11/8, 19/7, and 19/8 should also be deemed allowed for depending on allowed claims 7 and 8, respectively.

Abstract

The Abstract is objected to for containing improper language and exceeding 150 words in length. Enclosed herein is a Substitute Abstract which is believed not to contain improper language, not exceed 150 words, and is to be substituted for the originally filed Abstract. Applicants respectfully request withdrawal of the objection.

Informalities of Claims 6-7

Claims 6 and 7 are objected to for informalities. The claims have been amended herein and are believed to be responsive to the objection. As such, Applicants respectfully request withdrawal of the objection.

Claims 1-19 Recite Patentable Subject Matter

A. Claims 5-6 and 9-10 are rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 6,071,630 to Tomaru et al. (hereinafter "Tomaru"). Applicants respectfully traverse the rejection.

Pending claim 5 recites an electrostatic chucking device manufacturing method including a step in which a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50 μm, a polyimide film which constitutes a first insulation layer, a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50 μm, a metal foil which constitutes an electrode layer, a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50 μm and a polyimide film which constitutes a second insulation layer are sequentially superposed on a metal substrate, and a step in which a low-temperature compression bonding processing is performed at a heating temperature of 100 to 250°C under pressure so as to form a laminated structure which is constituted by sequentially laminating the first insulation layer, the electrode layer and the second insulation layer on the metal substrate.

Pending claim 6 recites an electrostatic chucking device manufacturing method including a step in which an electrode layer is formed on one-side surface of a first insulation layer or a second insulation layer by means of vapor deposition means or plating means, a step in which a thermoplastic polyimide-based adhesive film having a

film thickness of 5 to 50 μm, a polyimide film which constitutes the first insulation layer, the electrode layer and a polyimide film which constitutes the second insulation layer are sequentially superposed on a metal substrate while putting a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50 μm between the polyimide film which constitutes the first insulation layer or the second insulation layer and the electrode layer, and a step in which a low-temperature compression bonding processing is performed at a heating temperature of 100 to 250°C under pressure so as to form a laminated structure which is constituted by sequentially laminating the first insulation layer, the electrode layer and the second insulation layer on the metal substrate.

Tomaru discloses an electrostatic chuck having a silicone based adhesive or primer layers 18 and 20 having a thickness preferably in the range of 0.1 to 30 μm. See column 6, lines 15-18; column 8, lines 48-55; column 9, line 61 to column 10, line 63; and column 11, line 21 and Figures 1-2 of Tomaru. As discussed above, the invention recited by pending claims 5 and 6 provide for an adhesion layer formed of a thermoplastic polyimide-based adhesive film.

Tomaru discloses the silicone adhesive being applied by screen printing. See column 8, lines 47-48 of Tomaru. The invention recited by pending claims 5 and 6 disclose an electrostatic chucking device having a laminated structure formed of a first insulation layer, electrode layer, and a second insulation layer provided on the metal substrate using an adhesive film.

Furthermore, Tomaru discloses a ceramic material as a fist insulating layer. See column 3, lines 33 and 38-39. The invention recited by presently pending claims 5 and 6 use a polyimide film as the first insulating layer. In particular, the invention discloses an electrostatic chucking device manufacturing method that uses an adhesive film.

To qualify as prior art under 35 U.S.C. § 102, a single reference must teach, i.e., identically describe, each feature of a rejected claim. As explained above, Tomaru does not teach or describe each and every feature of rejected claims 5 and 6. Therefore, Tamaru does not anticipate nor render obvious claims 5 and 6. Accordingly, claims 5 and 6 should be deemed allowable.

Claims 9/5, 9/6, 10/5, 10/6, 11/5, 11/6, 12/5, 12/6, 14-18, 19/5, and 19/6 depend from claims 5 and 6, respectively. It is respectfully submitted that these dependent claims be deemed allowable for the same reasons claims 5 and 6 are allowable, as well as for the additional subject matter recited therein. Applicants respectfully request withdrawal of the rejections.

B. Claims 1 and 3-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,547,539 to Arasawa et al (hereinafter "Arasawa") in view of U.S. Patent No. 4,645,218 to Ooshio et al. (hereinafter "Ooshio"). Applicants respectfully traverse the rejection.

Pending claim 1 recites an electrostatic chucking device having a laminated structure which is formed by sequentially laminating a first insulation layer, an electrode layer and a second insulation layer on a metal substrate, wherein the first insulation layer and the second insulation layer are constituted of polyimide films, and at least the adhesion between the metal substrate and the first insulation layer is performed by

using a thermoplastic polyimide-based adhesive film having a film thickness of 5 to 50 μm. A benefit provided by the recited invention is the manufacture of an electrostatic chucking sheet which does not peel after repeated and prolonged use.

Figure 8A of Arasawa shows an aluminum suscepter or lower electron 14 having an electrostatic chuck 18 adhesively bonded thereon. See column 4, lines 25-28. The electrostatic chuck 18 includes a conductive metal film 19 provided between first and second insulation films 20, 20. As admitted by the Office Action, Arasawa does not disclose or suggest the adhesive layer having a thickness in a range between 5 μm to 50 μm.

The Office Action states Ooshio discloses at least one adhesion layer located between the metal substrate and the first insulation layer made by using a thermoplastic polyimide-based adhesive film. However, Applicants respectfully note Ooshio does not teach the adhesion layer is made of an adhesive film. As note above, pending claim 1 recites an electrostatic chucking device manufacturing method having a laminated structure formed by laminating between an a metal substrate and a first insulation layer, and the adhesion is performed using an adhesive layer.

Furthermore, Ooshio does not teach or suggest that the adhesion layer is formed of a polyimide-based adhesive film.

Moreover, Arasawa does not disclose an electrostatic chucking device formed by using a thermoplastic polyimide-based adhesive film.

To establish prima facie obviousness, all of the features of a rejected claim must be taught or suggested by the applied art of record. See M.P.E.P. §2143.03. As explained above, Arasawa and Ooshio, alone or in combination, do not teach or

suggest all of the features recited by pending claim. Accordingly, Applicants respectfully submit pending claim 1 is not rendered obvious in view of Arasawa and Ooshio and should be deemed allowable.

Claims 3-4 and 13/1 depend from claim 1. It is respectfully submitted that these dependent claims be deemed allowable for the same reasons claim 1 is allowable, as well as for the additional subject matter recited therein.

Applicants respectfully request withdrawal of the rejection.

C. Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Arasawa in view of Ooshio and further in view of U.S. Patent No. 5,645,921 to Matsunaga et al. (hereinafter "Matsunaga"). Applicants respectfully traverse the rejection.

Arasawa and Ooshio are discussed above.

Applicants respectfully note Matsunaga discloses multiple adhesion layers 2a, 2b, and 2c provided between insulation layers 4a and 4b. However, Matsunaga does not disclose the adhesion layers being formed from an adhesive film, nor does Matsunaga overcome the above-described deficiencies of Arasawa and Ooshio. Accordingly, Applicants respectfully submit that claim 2 should be deemed allowable for the reasons claim 1 is allowable, as well as for the additional subject matter recited therein. Applicants respectfully request withdrawal of the rejection.

D. Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Tomaru in view of U.S. Patent No. 6,099,678 to Kotato et al. (hereinafter "Kotato"). Applicants respectfully traverse the rejection.

Tomaru is discussed above where it is noted Tomaru does not disclose adhesive layers having a thickness in a range that is greater than 30 and less than 50 μm. Kotato is applied for teaching a laminating method using low temperature compression bonding and does not overcome the above-described deficiency of Tomaru. Accordingly, Applicants respectfully submit that claim 11 should be deemed allowable because the proposed combination of Tomaru and Kotato does not arrive at the invention recited by claim 11 as well as for the fact claim 11 depends from an allowable claim (i.e., claims 5 and 6). As such, Applicants respectfully request withdrawal of the rejection.

Conclusion

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding objections and rejections, allowance of claims 1-19, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 101160-00017**.

Respectfully submitted,
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Enclosures: Petition for Extension of Time (1 month)
PTO Form 1449

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